UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,681	05/08/2001	John Baker	TTI-001	3254

			EXAMINER
8791	7590	12/14/2005	MURPHY, RHONDA L

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ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/851,681	BAKER ET AL.
	Examiner	Art Unit	
	Rhonda Murphy	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-68* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This communication is responsive to the amendment filed on September 30,

2005. Accordingly, claims 1-68 are currently pending in this application.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-10,12-14,16,20,23-25,27-48,50-52,54,57-68 are rejected under 35

U.S.C. 103(a) as being unpatentable over Lager et al. (US 6,636,502) in view of Pines

et al. (US 2003/0007625) and Benveniste (US 6,775,549).

Regarding claims 1 and 39, Lager teaches a system for providing wireless data

services comprising: a plurality of mobile stations (Fig. 8, **GPRS-MS**); at least one

packet data network (Fig. 8, **PDN1** and **PDN2**); a wireless access integrated node

(WAIN) directly intermediating between the plurality of mobile stations and the at least

one packet data network to provide a wired or wireless dedicated connection (Fig. 8,

PLMN-SW; col. 11, lines 40-43; dedicated connections P1, P2), the WAIN having: a

plurality of mobile data transmission modules and signaling modules for sending,

processing, and receiving data packets (Fig. 8, modules **SCM, SEL, MSC/VLR, NIP-RC**

and transceiver (not shown) connected to the antenna of PLMN-SW, for communication

with the GPRS-MS); a plurality of interfaces and ports for sending messages to and

receiving messages from at least one packet data network, systems, and mobile

stations interconnected with the WAIN (col. 11, lines 17-24, 51-59); iii) a database

containing subscription and operating information for the plurality of mobile stations

attached to the WAIN (Fig. 8, **HLR/SP**; col. 12, lines 66-67, col. 13, lines 1-3; col. 15,

lines 32-36); iv) a main controller to coordinate and control the mobile data

transmission modules, signaling modules, interfaces, and database (Fig. 8, **AC**; col. 12,

lines 57-65). d) a radio interface interconnecting the plurality of mobile stations and the

WAIN (represented by "**Sending NIP**" signal in Fig. 8); and e) a network interface

interconnecting the WAIN and at least one packet data network (represented by **P1** and

P2 lines in Fig. 8; col. 11, lines 51-59).

Although Lager teaches a dedicated connection, Lager fails to explicitly disclose

a dedicated broadband connection.

However, it is known in the art that wireless networks consist of broadband

connections.

In view of this, it would have been obvious to one skilled in the art to include a

dedicated broadband connection, in order to provide a high speed, dedicated path for

the subscribers to efficiently transmit data within the network.

Lager fails to teach a database containing charging information for the plurality of

mobile stations attached to the WAIN.

However, it is known in the art that charging information is stored in a database

for billing subscribers. It would have been obvious to one having ordinary skill in the art

at the time the invention was made, to include a database containing charging data in

order to record subscriber use/access to the network.

Lager also fails to teach a main controller for collecting charging data.

However, Pines teaches a main controller (Fig. 1, **service provider 26**) for

collect charging data (page 16, paragraph 0200).

In view of this, having the system of Lager and then given the teachings of Pines,

it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by collecting charging data within

the main controller, in order to maintain subscriber records within a centralized location.

Lager further discloses dynamic configuration of the WAIN between the mobile

stations and packet network (col. 16, lines 33-40). Lager fails to explicitly disclose the

WAIN automatically configuring itself to minimize interference between the plurality of

mobile stations and the at least one packet network.

However, Benveniste discloses a base station automatically configuring itself to

minimize interference between the plurality of mobile stations and the at least one

packet network (col. 4, lines 39-49).

In view of this, it would have been obvious to one skilled in the art to modify

Lager's system by automatically configuring itself to minimize interference, so as to

enable mobile stations to communicate at the desired voice or data transmission quality

without channel interference.

Regarding claims 2 and 40, Lager further teaches a system wherein the packet data

network is an Internet (the enclosed circle of Fig. 8).

Regarding claims 3 and 41, Lager further teaches a system wherein the packet data

network is an intranet (Fig. 8, **PDN2**).

Regarding claims 4 and 42, Lager further teaches a system wherein a content server

is attached to the intranet (Fig. 8, **Radius server**).

Regarding claims 5 and 43, Lager further teaches a system wherein the mobile data

transmission module is a PDCP module (col. 8, lines 6-8).

Regarding claims 6 and 44, Lager further teaches a system wherein the mobile data

transmission module is a RLC/MAC module (col. 5, lines 28-39; note col.10, lines 66-67,

col. 11, lines 1-5).

Regarding claims 7 and 45, Lager further teaches a system wherein the mobile data

transmission module is a Transceiver (TRX) module (Fig. 8, transceiver (not shown)

connected to the antenna of PLMN-SW, for communication with the GPRS-MS).

Regarding claims 8 and 46, Lager further teaches a system wherein the signaling

module is Radio Resource Management (module (not shown) located within SGSN of

Fig. 8, col. 8, lines 6-30).

Regarding claims 9 and 47, Lager further teaches a system wherein the signaling

module is GPRS Mobility Management (SCM of Fig. 8, col. 14, lines 64-67, col. 15, lines

1-10; wherein the SCM provides security by permitting or denying access to the packet

data network).

Regarding claims 10 and 48, Lager further teaches a system wherein the signaling

module is Session Management (NIP-RC of Fig. 8, col. 12, lines 49-54).

Regarding claims 12 and 50, Lager further teaches a local information system

interface (Fig. 8, **IP-TUN** line).

Regarding claims 13 and 51, Lager further teaches an appliance control interface (Fig.

8, **P1** line).

Regarding claims 14 and 52, Lager further teaches a system wherein the interface is

an intranet gateway (an intranet gateway interface is inherent in the system depicted in

Fig. 8, since an interface is required for the exchange of data between the access node

of **PLMN-SW** and the intranet of **PDN2**).

Regarding claims 16 and 54, Lager teaches a local information system interconnected

with the WAIN (Fig. 8, **ISP2**).

Regarding claims 20 and 57, Lager teaches a local appliance control system

interconnected with the WAIN (Fig. 8, **PDN2**)

Regarding claims 23 and 58, Lager teaches a wireless data collector interconnected

with the WAIN (Fig. 8, **GPRS-MS**; col. 15, lines 10-15).

Regarding claims 24 and 59, Lager teaches a system wherein the radio interface is a

GPRS radio interface (GPRS-MS transmits over radio interface represented by

"Sending NIP" signal in Fig. 8).

Regarding claims 25 and 60, Lager teaches a system wherein the network interface is

an IP interface (Fig. 8, **IP-TUN** line connected to **ISP2**).

Regarding claims 27 and 61, Lager teaches mobile transmission modules including

means for modulating data packets (it is well known in the art that data packets are

modulated for transmission over a communication network).

Regarding claims 28 and 62, Lager teaches mobile transmission modules including

means for compressing data packets (col. 3, lines 64-67, col. 4, lines 1-2).

Regarding claims 29 and 63, Lager teaches mobile transmission modules including

means for encrypting data packets (col. 3, lines 41-45).

Regarding claims 30 and 64, Lager teaches mobile transmission modules including

means for multiplexing data packets (multiplexing data packets are known in the art for

transmitting signals over a single channel; TDMA is supported by GPRS, thus

multiplexing is inherent).

Regarding claims 31 and 65, Lager teaches mobile transmission modules including

means for correcting errors in data packets (error correction in data packets are well

known in the art for proper data reception).

Regarding claims 32 and 66, Lager teaches mobile transmission modules including

means for segmenting data packets (it is known in the art that data packets are

segmented - encapsulated and decapsulated for transmission among different network

protocols; col. 5, lines 32-39).

Regarding claims 33 and 67, Lager teaches mobile transmission modules including

means for controlling the sequence of data packets (controlling the sequence of data

packets is well known in the art, and occurs within the access control unit, **AC**, in Fig.

8).

Regarding claim 34, Lager teaches a WAIN including means for supporting mobile

stations roaming between a local WAIN environment and a public mobile network (Fig.

4, col. 5, lines 56-67).

Regarding claims 35 and 37, Lager teaches a WAIN including means for supporting

mobile stations roaming between different WAIN systems (col. 5, lines 56-67).

Regarding claim 36, Lager teaches a WAIN includes means for providing wireless data

services in a community service area located within cells of a public network (Fig. 8,

public networks **ISP's**) when the WAIN is clustered with several other WAIN systems

(Fig. 3, PLMN A and PLMN B).

Regarding claims 38 and 68, Lager teaches a WAIN including means for configuring

the WAIN as a network node (Fig. 8, col. 11, lines 6-16).

3.   Claims 11,15,49 and 53 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lager in view of Gaffney (US 6,333,919).

Regarding claims 11 and 49, Lager teaches a system with interfaces.

Lager fails to explicitly teach a voice interface.

However, Gaffney teaches a system with voice interfaces (Fig. 1, **interface 110**

and **120**).

In view of this, having the system of Lager and then given the teachings of

Gaffney, it would have been obvious to one having ordinary skill in the art at the time

the invention was made, to modify the system of Lager, by including a voice interface, in

order to provide a link for the exchange of voice data between devices.

Regarding claims 15 and 53, Lager teaches a system having ports.

Lager fails to explicitly teach an RJ11 port for a fixed wired telephone connection.

However, Gaffney teaches a fixed wire telephone connection (Fig. 1, desk phone

450; col. 4, lines 55-56) and it is known in the art that desk phones commonly use an

RJ11 jack.

In view of this, having the system of Lager and then given the teachings of

Gaffney, it would have been obvious to one having ordinary skill in the art at the time

the invention was made, to modify the system of Lager, by including an RJ11 port, in

order to provide a connection for telephone use.

4.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lager in

view of Doviak et al. (US 6,418,324).

Regarding claim 17, Lager teaches a WAIN with a local information system.

Lager fails to teach means for remotely synchronizing a personal digital assistant

with its host program.

However, Doviak teaches means for remotely synchronizing a personal digital

assistant (Fig. 1, **PDA 52**) with its host program (**MDC 54**; col. 9, lines 4-20).

In view of this, having the system of Lager and then given the teachings of

Doviak, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by remotely synchronizing a

personal digital assistant with it's host, in order to provide a user with a wider coverage

area and more efficient service.

5.   Claims 18-19, 21-22 and 55-56 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lager in view of Swartz (US 2003/0053444).

Regarding claims 18 and 55, Lager teaches a WAIN and commands from the mobile

station to the local information system.

Lager fails to teach voice recognition means for audibly relaying service request

commands.

However, Swartz teaches voice recognition means for audibly relaying service

request commands (page 7, paragraph 72).

In view of this, having the system of Lager and then given the teachings of

Swartz, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including voice recognition

means, in order to allow the user to verbally request information from the local

information system.

Regarding claims 19 and 56, Lager teaches a WAIN relaying information from the

local information system to the mobile station.

Lager fails to teach text-to-speech means for audibly relaying information.

However, Swartz teaches text-to-speech means for audibly relaying information

(page 7, paragraph 74).

In view of this, having the system of Lager and then given the teachings of

Swartz, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including text-to-speech means,

in order to allow the user to receive audio data which was originally in text form.

Regarding claim 21, Lager teaches a WAIN and commands from the mobile station to the appliance control system.

Lager fails to teach voice recognition means for audibly relaying service request commands.

However, Swartz teaches voice recognition means for audibly relaying service request commands (page 7, paragraph 72).

In view of this, having the system of Lager and then given the teachings of Swartz, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Lager, by including voice recognition means, in order to allow the user to verbally request information from the appliance control system.

Regarding claim 22, Lager teaches a WAIN relaying an appliance status report delivered from the appliance control system to the mobile station.

Lager fails to teach text-to-speech means for audibly relaying the report.

However, Swartz teaches text-to-speech means for audibly relaying information (page 7, paragraph 74).

In view of this, having the system of Lager and then given the teachings of Swartz, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Lager, by including text-to-speech means, in order to allow the user to receive audio data which was originally in text form.

6.   Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lager in

view of McNiff et al (US 2003/0076808).

Regarding claim 26, Lager teaches a system including means for enabling a mobile

station user to obtain a temporary subscription to the WAIN through a dynamic

registration (col. 12, lines 66-67, col. 13, lines 1-12).

Lager fails to teach a temporary subscription and cancellation process in which

the user's mobile station's subscription identity is linked with the mobile equipment

identity.

However, McNiff teaches a temporary subscription and cancellation process

(page 3, paragraph 36) in which the user's mobile station's secret subscription identity

(page 3, paragraph 29) is linked with the user's mobile station's mobile equipment

identity (page 3, paragraph 28).

In view of this, having the system of Lager and then given the teachings of

McNiff, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including a temporary

subscription and cancellation process, in order to restrict access to registered users and

maintain a secure network.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-

3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy
Examiner
Art Unit 2667

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